PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 2003P08616WO	FOR FURTHER ACTION	See Form PCT/IPEA/416							
International application No.	International filing date (day/mo	onth/year) Priority date (day/month/year)							
PCT/EP2004/050709	05.05.2004	13.06.2003							
International Patent Classification (IPC) or nation	onal classification and IPC								
Applicant									
Applicant SIEMENS AKTIENGESELLSCHAFT									
This report is the international prelin under Article 35 and transmitted to the		olished by this International Preliminary Examining Authority 36.							
2. This REPORT consists of a total of		sheets, including this cover sheet.							
3. This report is also accompanied by Al	NNEXES, comprising:								
a. (sent to the applicant and	to the International Bureau) a to	stal of 5 sheets, as follows:							
sheets of the descrip	sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative								
sheets which superse	sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental								
	Bureau anly) a total of (indicate t	type and number of electronic carrier(s))							
(sent to the international)	Zaroun oray) a total of (indicate l								
related thereto. in computer	readable form only, as indicated	, containing a sequence listing and/or tables and in the Supplemental Box Relating to Sequence Listing (see							
Section 802 of the Administ									
4. This report contains indications relati	ng to the following items:								
Box No. I Basis of the	report								
Box No. II Priority									
Box No. III Non-establi	shment of opinion with regard to	novelty, inventive step and industrial applicability							
Box No. IV Lack of unit	ty of invention								
	tatement under Article 35(2) with a dexplanations supporting such state	h regard to novelty, inventive step or industrial applicability; tatement							
Box No. VI Certain doc	cuments cited								
Box No. VII Certain defe	Box No. VII Certain defects in the international application								
Box No. VIII Certain obs	Box No. VIII Certain observations on the international application								
Date of submission of the demand	Date of c	completion of this report							
Name and mailing address of the IPEA/EP		zed officer							
Facsimile No.		ne No.							

Translation

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/EP2004/050709

Box	No. I	Basis of the report					
1.		regard to the language, this report is based on the internation ated under this item.	nal application in the language in	which it was filed, unless otherwise			
	This report is based on translations from the original language into the following language which is the language of a translation furnished for the purposes of: international search (Rule 12.3 and 23.1(b)) publication of the international application (Rule 12.4)						
		international preliminary examination (Rule 55.2 and/					
2.	With regard to the elements of the international application, this report is based on (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report): the international application as originally filed/furnished						
	_	the description: pages 1, 2, 4-14		as originally filed/furnished			
		pages* 3,3A		18.01.2005 with letter			
		pages*					
ļ	\boxtimes	the claims:					
		nos.		as originally filed/furnished			
		nos.*	as amended (togethe	r with any statement) under Article 19 18.01.2005 with letter			
		nos.* 1-4	received by this Authority on				
		nos.*	received by this Authority on				
	\boxtimes	the drawings:					
		sheets 1/5-5/5		as originally filed/furnished			
		sheets*	received by this Authority on				
		sheets*	received by this Authority on				
		a sequence listing and/or any related table(s) - see Supplement	ental Box Relating to Sequence I	isting.			
3.		The amendments have resulted in the cancellation of:					
		the description, pages	 				
		the claims, nos.					
		the drawings, sheets/figs					
		the sequence listing (specify):		 			
		any table(s) related to sequence listing (specify):					
4.		This report has been established as if (some of) the amend they have been considered to go beyond the disclosure as fi	dments annexed to this report and led, as indicated in the Supplement	d listed below had not been made, since ntal Box (Rule 70.2(c)).			
		the description, pages		<u> </u>			
	the claims, nos.						
	the drawings, sheets/figs						
		the sequence listing (specify):					
	any table(s) related to sequence listing (specify):						
<u>+</u>	If it	em 4 applies, some or all of those sheets may be marked "sup	perseded."				

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Box	Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement					
1.	Statement					
	Novelty (N)		Claims 1-4	YES		
			Claims	NO		
	Inventive step (IS)		Claims 1-4	YES		
			Claims			
	Industrial applicability (IA)		Claims 1-4	YES		
			Claims			
2.	Citations and	d explanations (Rule	70.7)			
	Citations and explanations (Rule 70.7) This report makes reference to the following document:					
		- OF 0 - 0				
	D1:	US-B1-6 3	345 076 (GERSTACKER WOLFGANG ET AL) 5			
	February 2002 (2002-02-05)					
	V.1	D1 is cor	nsidered to be the prior art closest to			
		the subje	ect matter of claim 1. D1 discloses (the			
		references in parentheses are to D1): a				
		method of	f estimating data units transmitted in a			
radio block via a radio channel (column		ock via a radio channel (column 3, lines				
	25-29), in		in which method			
		- base	ed on the transmitted data units, a signal			
		sequ	uence is received by a receiving station			
		(col	lumn 3, line 66, "received symbols"),			
		- the	components of the received signal			
		sequ	uence are assigned to at least a first and			
		a se	econd signal block in the temporal order			
		in v	which they are received (column 3, lines			
		66-6	67, "at least two symbol blocks") and are			
		prod	cessed block by block (column 4, line 3,			
		"syr	mbol block by symbol block"), wherein the			
		sign	nal blocks overlap in such a way that that			

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

- at least one component of the received signal sequence belongs to both signal blocks (column 4, line 1, "symbol blocks overlapping by at least one symbol"),
- and estimated values for the transmitted data units are determined using the components of both signal blocks, the signal blocks overlapping in such a way that an estimated value is determined for at least one transmitted data unit using both signal blocks (column 4, lines 1-3, "forms symbol blocks overlapping by at least one symbol and forms the estimates for the transmitted symbols symbol block by symbol block").

Thus the subject matter of claim 1 differs from the known method in that, after the two estimated values have been determined, only the estimated value for the at least one transmitted data unit determined using one of the two signal blocks is used.

The subject matter of claim 1 is therefore novel (PCT Article 33(2)).

V.2 The problem to be solved by the present inventive can therefore be regarded as that of achieving better estimation for the first and the last transmitted data units (see the description, page 4, lines 13-23 and page 11, line 29 - page 12, line 6).

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Box No. V

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V.3 The solution to this problem as proposed in claim

1 of the present application involves an inventive
step for the following reasons (PCT Article
33(3)): none of the documents cited in the search
report suggests improving the estimation of
transmitted data units by using overlapping signal
blocks, wherein, after two estimated values have
been determined, only the estimated value for the
at least one transmitted data unit determined

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;

V.4 The same argument applies accordingly to independent claim 4. The subject matter of claim 4 is therefore also novel and involves an inventive step.

using one of the two signal blocks is used

V.5 Claims 2 and 3 are dependent on claim 1 and therefore also meet the PCT requirements for novelty and inventive step.